DETAILED ACTION

Response to Argument

1. Applicant's arguments filed on 1/19/2011 have been fully considered but they are not persuasive.

2. Applicant argues that

> *The '722 reference, as applied in the Office Action, discloses a rescue process that, like Hunzinger '675, is terminal-based, rather than system-based as recited in previously presented independent claims 1 and 6. For this reason alone, Applicants respectfully submit that the new rejections are improper and should be withdrawn.*

This argument is not persuasive. Hunzinger was applied to meet the limitation of *"a system for recovering from hand-off fail"* Hunzinger also discloses a system for recovering from hand off failure. Examiner does not agree with the applicant's argument that Hunzinger's solution is terminal based. The terminal of Hunzinger does not operate in vacuum but in conjunction with the whole communication network/system and thus it meets the above limitation.

3. Applicant argues that *"Turner, as applied in the Office Action, does not teach or suggest the claimed re-transmission as highlighted…"*

> if the EV-DO system receives the response signal (L2ACK) from the hybrid access terminal in response to the traffic channel assignment signal, the EV-DO system transmits an acknowledge signal for a reverse traffic channel to the hybrid access terminal, and then, **re**-transmitting the traffic channel assignment signal to the hybrid access terminal if a traffic channel completion signal is not transmitted to the EV-DO system from the hybrid access terminal, thereby performing the hand-off.

This argument is not persuasive. The above is interpreted as shown in the following steps:

- The network (EV-DO) assigned traffic channel to mobile terminal
- The mobile sends a response to the network in response to this traffic channel assignment
- The network sends an ACK back to the mobile terminal
- If mobile terminal does not send a ACK back then
- The network retransmit the traffic channel assignment signal to mobile terminal

This argument is not persuasive because this types of retransmission during a channel setup are part of known communication protocols including EV-DO networks and the applied references such retransmission.

4. Therefore, the applied reverences disclose all the limitations of the claims of the applicant and thus the rejection is maintained.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2-7, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner (US 2003/0,152,049) in view of Hunzinger (US 7133675).

With respect to claim 3, Turner discloses a multimedia mobile communication system the multimedia mobile communication system comprising:

a hybrid access terminal making communication with the EV-DO system and a lx system in order to transmit/receive voice signals or data **(See Turner's section [0010] particularly lines 1-8, [0012] particularly lines 1-5, [0015] particularly lines 4-7 where a hybrid access terminal is disclosed that communicates with two types of networks namely IS-2000 (CDMA 2000) for voice, and IS-856 for high speed data packet communication, see additional info: abstract lines 1-5, section [0002], [0006] particularly lines 8-13 , [0008], , [0018], [0041], [0043] lines 5-13, [0045] lines 1-3)**,

transmitting a route update signal to the EV-DO system while a multimedia service is being transmitted thereto from the EV-DO system **(See Turner's section [0014] lines 1-6, [0042], see additional info: [0013] lines 1-5, [0010] lines 1-8)**, and performing a hand-off by transmitting a hand-off response signal to the EV-DO system when a hand-off signal is transmitted thereto from the EV-DO system **(See Turner's section [0014] lines 1-6, [0042], see additional info: [0013] lines 1-5, [0010] lines 1-8)**;

a lx transceiver for transmitting/receiving a voice signal or data to/from the hybrid access terminal **(See Turner's figure 2(202), section [0048], [0046])**;

a lx controller for controlling a transmission service of the lx transceiver **(See Turner's figure 2(206), section [0046] lines 4-5, [0047] lines 7-8)**;

an inherent mobile switching center for providing a communication access route of the lx system with respect to a communication call from the hybrid access terminal by switching the communication access route **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4 where the action of handoff between networks indicates presence of a Mobile Switching Center and a mobile switching center is an inherent part of a cellular communication system)**;

an EV-DO access network transceiver subsystem for transmitting/receiving packet data to/from the hybrid access terminal **(See Turner's figure 1, section [0044])**;

an EV-DO access network controller controlling a packet data transmission service of the EV-DO access network transceiver subsystem, receiving the route update signal from the hybrid access terminal while the multimedia service is being transmitted to the hybrid access terminal from the EV-DO access network transceiver subsystem, transmitting a traffic channel assignment signal to the hybrid access terminal in response to the route update signal, and re-transmitting the traffic channel assignment signal to the hybrid access terminal if a response signal (L2ACK) is not transmitted thereto from the hybrid access terminal, thereby performing the hand-off **(See Turner's figure 1, section [0041]–[0043) Turner discloses a since a hybrid access terminal operates in this system then inherently the networks includes all the required subsystems)**; and

a packet data serving node connected to the EV-DO access network controller so as to transmit/receive the packet data to/from the EV-DO system **(See Turner's figure 1, section [0044])**;

wherein, if the response signal (L2ACK) is not transmitted to the EV-DO system from the hybrid access terminal in traffic with the EV-DO system even though the EV-DO system has transmitted the traffic channel assignment signal to the hybrid access terminal, the EV-DO system again transmits the traffic assignment signal to the hybrid access terminal, and if the EV-DO system receives the response signal (L2ACK) from the hybrid access terminal in response to the traffic channel assignment signal, the EV-DO system transmits an acknowledge signal for a reverse traffic channel to the hybrid access terminal, and then, re-transmitting the traffic channel assignment signal to the hybrid access terminal if a traffic channel completion signal is not transmitted to the EV-DO system from the hybrid access terminal, thereby performing the hand- off **(See Turner's section [0108]-[0118])**.

Turner discloses everything claimed as applied above to claim 3, except for explicitly reciting a system for recovering from hand-off fail.

In analogous art, Hunzinger (from different application) discloses a communication system for recovery from a failed handoff **(See Hunzinger's abstract, col.8 lines 20-45, col.13 lines 7-17).** It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Turner by specifically implementing the hand off fail recovery system in the EV-DO communication system as

taught by Hunzinger for the purpose of reducing the probability of dropped calls during hand off as suggested by Hunzinger **(See Hunzinger's col.1 lines 56-62).**

With respect to claim 6, Turner discloses a method in a multimedia mobile communication system, the method comprising:

performing a packet data transmission between the EV-DO system and a hybrid access terminal in traffic with the EV-DO system **(See Turner's section [0010] particularly lines 1-8, [0012] particularly lines 1-5, [0015] particularly lines 4-7 where a hybrid access terminal is disclosed that communicates with two types of networks namely IS-2000 (CDMA 2000) for voice, and IS-856 for high speed data packet communication, see additional info: abstract lines 1-5, section [0002], [0006] particularly lines 8-13 , [0008], , [0018], [0041], [0043] lines 5-13, [0045] lines 1-3)**,

transmitting a route update signal for a hand-off from the hybrid access terminal to the EV-DO system **(See Turner's section [0014] lines 1-6, [0042], see additional info: [0013] lines 1-5, [0010] lines 1-8)**,

in response to the route update signal, transmitting a traffic channel assignment signal from the EV-DO system to the hybrid access terminal **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4)**;

determining whether or not a response signal for the hand-off signal is transmitted from the hybrid access terminal to the EV-DO system **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4)**; and

re-transmitting the traffic channel assignment signal from the EV-DO system to the hybrid access terminal if no response signal is transmitted from the hybrid access terminal to the EV-DO system **(See Turner's figure 1, section [0041]–[0043])**;

after the response signal for the traffic channel assignment signal is received from the hybrid access terminal by the EV-DO system, sending a reverse traffic channel signal from the EV-DO system to the hybrid access terminal off **(See Turner's section [0108]-[0118])**;

determining whether or not a traffic channel completion signal is transmitted from the hybrid access terminal to the EV-DO system in response to the reverse traffic channel signal **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4)**;

re-transmitting the traffic channel assignment signal from the EV-DO system to the hybrid access terminal if no traffic channel completion signal is transmitted from the hybrid access terminal to the EV-DO system in response to the reverse traffic channel signal **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4 additional info: [0108]-[0118])**; and

after the traffic channel completion signal is received from the hybrid access terminal by the EV-DO system, sending a neighbor base station list from the EV-DO system to the hybrid access terminal, thereby performing the hand-off **(See Turner's section [0014] lines 1-6, [0042], see additional info: [0013] lines 1-5, [0010] lines 1-8)**.

Turner discloses everything claimed as applied above to claim 6, except for explicitly reciting a system for recovering from hand-off fail.

In analogous art, Hunzinger (from different application) discloses a communication system for recovery from a failed handoff **(See Hunzinger's abstract, col.8 lines 20-45, col.13 lines 7-17).** It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Turner by specifically implementing the hand off fail recovery system in the EV-DO communication system as taught by Hunzinger for the purpose of reducing the probability of dropped calls during hand off as suggested by Hunzinger **(See Hunzinger's col.1 lines 56-62).**

With respect to claim 2, Turner discloses a method wherein the hand-off signal transmitted to the hybrid access terminal from the EV-DO system includes the traffic channel assignment signal having a sequence number of a neighbor base station and an acknowledge signal for a reverse traffic channel **(See Turner's [0013] lines 1-5, [0010] lines 1-8, [0014] lines 1-6, [0042] lines 1-4 where signaling between the neighboring stations is an inherent part of the process of handoff)**.

With respect to claim 4, Turner discloses a system wherein the hybrid access terminal receiving the multimedia data from the EV-DO system is periodically switched

into an IX mode in a predetermined period of time so as to check whether or not voice signals are received through the IX system, and returns to an EV-DO mode **(See Turner's section [0070], [0088], [0150])**.

With respect to claim 5 and 12, the above combinations disclose all the limitations of the claim 5 and 12.

With respect to claim 7, Turner discloses a method wherein step in said performing the packet data transmission between the EV-DO system and the hybrid access terminal is performed by:

sequentially initializing a IX mode for making communication with a IX system and an EV-DO mode for making communication with the EV-DO system of the hybrid access terminal such that the hybrid access terminal stays in an idle state **(See Turner's abstract, lines 1-5, section [0002], [0006] particularly lines 8-13 , [0008], [0010] particularly lines 1-8, [0012] particularly lines 1-5, [0015] particularly lines 4-7, [0018], [0041], [0043] lines 5-13, [0045] lines 1-3)**;

performing a dual monitoring with respect to the IX mode and the EV-DO mode by using the hybrid access terminal in a state that the hybrid access terminal stays in the idle state **(See Turner's section [0070], [0088], [0150])**; and

allowing the hybrid access terminal to enter into a traffic state of the EV-DO mode such that a connection and a session are formed between the hybrid access terminal and the EV-DO system, thereby enabling the hybrid access terminal to transmit/receive packet data to/from the EV-DO system **(See Turner's abstract, lines 1-5, section [0002],**

[0006] particularly lines 8-13 , [0008], [0010] particularly lines 1-8, [0012] particularly lines 1-5, [0015] particularly lines 4-7, [0018], [0041], [0043] lines 5-13, [0045] lines 1-3).

With respect to claim 11, Turner discloses a method wherein said performing the hybrid access terminal receiving the multimedia data from the EV-DO system is periodically switched into an IX mode in a predetermined period of time so as to check whether or not voice signals are received through the IX system, and returns to an EV-DO mode **(See Turner's section [0070], [0088], [0150])**.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

8. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAYED T. ZEWARI whose telephone number is (571)272-6851. The examiner can normally be reached on 8:30-4:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamran Afshar can be reached on 571-272-7796. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sayed T Zewari/
Examiner, Art Unit 2617

/KAMRAN AFSHAR/
Supervisory Patent Examiner, Art Unit 2617